

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL VALLEY REGION

ORDER NO. R5-2004-\_\_\_\_\_

WASTE DISCHARGE REQUIREMENTS  
FOR  
MUSCO FAMILY OLIVE COMPANY  
AND  
THE STUDLEY COMPANY  
CLASS II SURFACE IMPOUNDMENTS  
TRACY PLANT  
SAN JOAQUIN COUNTY

The California Regional Water Quality Control Board, Central Valley Region, (hereafter Board) finds that:

1. Musco Family Olive Company (hereafter Discharger) operates an olive packing plant on property owned by the Studley Company. The facility was previously regulated by Waste Discharge Requirements (WDRs) Order No. 96-075 in conformance with Title 27 of California Code of Regulations, Division 2, Subdivision 1 (hereafter Title 27 CCR). The Discharger submitted a Report of Waste Discharge on 16 January 2004 requesting a revision of WDRs to update the expansion project at the facility.
2. The facility is at 17950 Via Nicolo in Tracy, California. This property is described by Assessor's Parcel Number(s) 209-110-14 in Section 34, T2S, R4E, MDB&M. At an elevation of 280 feet above sea level, the processing plant is on the eastern slope of the Diablo Mountain Range. The facility is south of Interstate 580 and east of Patterson Pass Road, near Tracy, as shown on Attachment A, which is incorporated herein and made a part of this order.
3. The Discharger discharges an average of 28,700 gallons per day (gpd) (10,476,500 million gallons per year) of process wastewater to two Class II surface impoundments referred to as Ponds A and B waste management units (Units). The capacity of Pond A is 38.5 acre-feet. The capacity of Pond B is 32.3 acre-feet. Ponds A and B are shown on Attachments B and C, which are incorporated herein and made a part of this Order. Attachment B is a site plan depicting the surface impoundments, groundwater monitoring wells, evaporation acreage and holding pond. Attachment C depicts Ponds A and B with associated lysimeters and sumps.
4. The facility also incorporates a one million-gallon storage pond, 84 million-gallon process wastewater storage reservoir, and land application areas located around the facility, including adjacent to the surface impoundments as shown on Attachment B. Process wastewater destined for land application is pumped to a clay-lined, 1-MG earthen holding pond and subsequently discharged to the 84-MG reservoir and the land application system



for treatment and disposal. The land application system consists of several fields, which total approximately 223 acres as shown on Attachment B. WDRs Order No. R5-2002-0148 and Cleanup and Abatement Order No. R5-2002-0149 regulates the land application system as a wastewater treatment and disposal facility.

5. A subsurface septic treatment system occupies the acreage northwest of Ponds A and B. The system automatically distributes sanitary wastewater from septic tanks via a 3-way distribution valve to three banks of leach fields as shown on Attachment B.

### **WASTE AND SITE CLASSIFICATION**

6. Wastewater is generated from the storage area, the processing areas, the canning areas, and from certain incoming water treatment and boiler feed water treatment processes. Source water for processing comes from the California Aqueduct obtained from the Department of Water Resources State Water Project (SWP). The SWP monitors the water quality at the Harvey Banks Delta Pumping Plant (HBDPP) for parameters, including but not limited to, temperature, turbidity, pH, electroconductivity (EC) and flow. Source water is treated prior to use in the plant.
7. The three streams directed to the surface impoundments are the flotation brine (~25,000 gpd), the softener ion-exchange regeneration stream (~1,100 gpd) and the boiler blow down (~2,100 gpd). Spent lye that can no longer be recycled and excess brine from spillage from conveyor belts is directed via floor drains and sumps to the surface impoundments.
8. Stormwater from the process areas is collected in secondary containment, routed via drains to sumps and pumped to the wastewater holding pond. Stormwater from a small chemical storage area can be directed to the surface impoundments if warranted based on testing of characteristics. Stormwater monitoring is performed in accordance with the Musco Stormwater Pollution Prevention Plan (SWPPP) and the National Pollution Discharge Elimination System (NPDES) General Permit No. CAS000001.
9. Table 1 provides a summary of the average analytical results for samples collected from the surface impoundments. Samples from the surface impoundments were analyzed for EC, pH, total dissolved solids (TDS), chloride, sulfate, nitrate, chemical oxygen demand (COD), total hardness, calcium, magnesium, potassium, and total alkalinity. Background concentration limits (CLs) as Water Quality Protection Standards (WQPSs) for constituents of concern (COCs) have not been established at this time. CLs based on intra- or interwell analysis will be established once a sufficient number of groundwater quality results are available for statistical calculation. In the absence of WQPSs based on background or baseline concentrations, Table 1 also provides reference water quality goals.



**Table 1.**

<b>Constituents/ Parameters</b>	<b>Average (1996-2003)</b>		<b>Water Quality Goals<sup>1</sup></b>	
	<b>Pond A</b>	<b>Pond B</b>	<b>Groundwater</b>	<b>Surface Water</b>
EC (µmhos/cm)	61,187	41,540	700 <sup>2</sup>	700 <sup>2</sup>
pH	8.77	8.90	6.5-8.4 <sup>2</sup>	6.5-8.4 <sup>2</sup>
TDS (mg/l)	79,470	41,021	450 <sup>2</sup>	450 <sup>2</sup>
Chloride (mg/l)	27,577	13,601	106 <sup>2</sup>	106 <sup>2</sup>
Sulfate (mg/l)	915	310	250 <sup>3</sup>	250 <sup>3</sup>
Nitrate (mg/l)	1	5	10 <sup>4</sup>	10 <sup>4</sup>
COD (mg/l)	30,391	18,140	-	-
Total Hardness (mg/l)	320	212	-	-
Calcium (mg/l)	155	100	-	-
Magnesium (mg/l)	96	53	-	-
Potassium (mg/l)	3,203	1,243	-	-
Total Alkalinity as CaCO <sub>3</sub> (mg/l)	22,660	10,490	-	-

<sup>1</sup>A Compilation of Water Quality Goals (RWQCB-CV, 2004, <http://www.swrcb.ca.gov/rwqcb5/>)

<sup>2</sup>Agricultural Water Quality Goals (Food & Ag. Org. of United Nations)

<sup>3</sup>Drinking Water Standards - Secondary MCL (taste & odor or welfare-based)

<sup>4</sup>California Public Health Goal (Cal/EPA, OEHHA)

10. 'Designated waste' is defined in California Water Code, §13173, as a nonhazardous waste which consists of, or contains pollutants which, under ambient environmental conditions at the waste management unit, could be released at concentrations in excess of applicable water quality goals, or which could cause degradation of waters of the state.
11. The discharge poses a significant threat to water quality. Therefore, the discharge is a 'designated waste' and as such must be discharged to Class II Surface Impoundments as required by Title 27 CCR.



### **SITE DESCRIPTION**

12. The measured hydraulic conductivity of the native soils underlying the Units ranges between  $1.5 \times 10^{-8}$  and  $6 \times 10^{-8}$  cm/sec corresponding to  $2.13 \times 10^{-5}$  in/hr and  $8.5 \times 10^{-6}$  in/hr. The soils at the facility are predominately clay, clayey silt and silty clay. Two-thirds of the western portion of the facility is located on the materials from the Pliocene period, which consist of sedimentary deposits of the Tulare and Laguna formations. The other one-third (eastern) is situated on the Pleistocene nonmarine sediments. Surface soils are of the Ambrose Clay Formation (Calla-Carbona Complex, Carbona Clay Loam) consisting of dark brown or dark grayish-brown strongly developed secondary material from sandstones, shales, and other sedimentary rocks and tend to have low permeability rates.
13. The closest Holocene fault, known as the Greenville fault, is approximately 4.5 miles west of the Units. Recorded magnitudes of seismic events along this fault range between 5.3 and 5.9 on the Richter scale. A magnitude 6.5 earthquake originating 4.5 miles from the surface impoundments would produce an estimated 0.49 g maximum peak bedrock acceleration below the ponds. Two minor faults within one mile are the Midway fault (potentially active) and Black Butte fault (inactive).
14. Land uses within 1,000 feet of the facility are residential and agricultural.
15. The average annual total precipitation for this area of San Joaquin County (Tracy Pumping Plant, Station Number 049001) is 12.2 inches. The 100-year annual total precipitation for this area is 29.7 inches. The peak monthly 100-year precipitation of 6.4 inches occurs in January.
16. The 100-year, 24-hour precipitation event is estimated to be 2.5 inches, based on the California Department of Transportation Intensity-Duration-Frequency Rainfall Curve Program for the Tracy 2 SSE Station No. 116. The 24-hour, 1,000 year storm event is 3 inches.
17. The waste management facility is not within a 100-year flood plain based on the Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Map, Community-Panel Number 0602990700A.

### **SURFACE AND GROUND WATER CONDITIONS**

18. The *Water Quality Control Plan for the Sacramento River and San Joaquin River Basin, Fourth Edition* (hereafter Basin Plan), designates beneficial uses, establishes water quality objectives, and contains implementation plans and policies for all waters of the Basin.
19. The designated beneficial uses of the groundwater, as specified in the Basin Plan, are domestic and municipal, agricultural, and industrial supply.



20. Surface drainage is toward a dry creek bed, which flows eastward toward the valley floor in the North Diablo Range Hydrologic Area (543.00) of the San Joaquin Hydrologic Basin. This creek bed does not empty into another waterway, but rather disappears on the valley floor east of the site.
21. According to Kennedy/Jenks Consultants (as cited in the Report of Waste Discharge, Class II Surface Impoundments), hydrogeology (i.e., multiple water bearing zones) is characterized by complex alluvial fan, which imparts variable chemical constituents and occurrences of groundwater zones. It is of an alluvial fan nature and therefore is spatially variable, such that the fans are discontinuous laterally and with depth. The water quality within the zones is influenced by the material-properties of the formation (matrix) in addition to the effects of mixing of groundwater as these permeable zones coalesce in the distal portion of the fan. This also means that the water bearing zones within the single groundwater system (aquifer) cannot be readily correlated. The shallow zone groundwater is seasonal and perched. There are also intermediate and deep zones, which are underlain by the competent Corcoran clay-confining zone.
22. Water quality within the various groundwater zones is influenced by the material properties of the formation in addition to the effects of mixing of groundwater in these permeable zones. Statistically derived concentration limits appropriate for potential leak detection have not been developed at this time due to the limited data set. Once a sufficient amount of data is available, the Discharger will develop Water Quality Protection Standards (WQPS) for the constituents of concern (COC) for groundwater and surface water.
23. Attachment B depicts the groundwater monitoring system for the entire facility. A network of 17 monitoring wells monitors groundwater at the facility. Monitoring wells MW-11, MW-12, and W-2 currently monitor groundwater around the surface impoundments in the up-, down-, and cross-gradient locations, respectively. MW-11 and W-2 encounter intermediate-depth groundwater from 35-40 feet below ground surface (bgs). Monitoring well MW-12 encounters deeper groundwater from 90-130 feet bgs. The remaining 14 wells, MW-1 through MW-10 and MW-13 through MW-16 monitor the groundwater beneath the land application areas and are not directly associated with the surface impoundments. The Discharger proposes to install additional wells in order to ensure that the water bearing horizons around the surface impoundments are adequately monitored. The groundwater is unconfined. The depth to groundwater fluctuates seasonally.
24. Shallow groundwater flow direction around the Ponds is to the northeast. The deeper groundwater flow direction is to the northwest based on December 2003 data. The average groundwater gradient near MW-5, MW-10 and W-2 is approximately 0.007 feet per foot (4<sup>th</sup> Quarter 2003). The deeper zone near MW-4, MW-7, MW-8 and MW-12 had a gradient of approximately 0.029 feet per foot (4<sup>th</sup> Quarter 2003).



25. There are six wells within 5,000 feet of the site, screened between 80 and 600 feet below ground surface. The uses of water from these wells are domestic, agricultural and industrial supply. There is one residence within 1000 feet of the facility, which has a domestic well known as Regional Well So. Hansen. The well screen interval is unknown. The groundwater elevation is considered to be in the shallow water-bearing zone. Water quality is monitored by the Discharger.
26. The Discharger has installed 37 lysimeters under Ponds A and B at five and 10-foot depths to monitor the vadose zone. Lysimeter numbers 6, 13, 30, 36, 37, and 38 are no longer functioning. One additional lysimeter was installed approximately 250 feet southwest of Pond A to function as a background vadose zone monitoring point. Because the land above the background lysimeter is now irrigated with process wastewater, the Discharger has agreed to install a new background lysimeter at an approved location. Attachment C shows the lysimeter designations. Series 1900 lysimeters are twelve inches long with a porous tip, PVC body, and polyethylene tubing extending to the surface to convey collected fluid.

#### **GROUNDWATER, UNSATURATED ZONE, AND SURFACE WATER MONITORING**

27. The Discharger's detection monitoring program for groundwater at the Units does satisfy the requirements contained in Title 27 CCR. However, several wells have gone dry over time. If specific wells that monitor the Units remain dry over four consecutive seasonal sampling events, the Discharger shall be required to propose additional wells to comply with groundwater detection monitoring requirements.
28. The Discharger's detection monitoring program for the unsaturated zone at the Units does satisfy the requirements contained in Title 27 CCR.
29. The Discharger's detection monitoring program for surface water at the Units does satisfy the requirements contained in Title 27 CCR.

#### **DESIGN OF WASTE MANAGEMENT UNITS**

30. Kenneth Kjeldsen, a California Registered Civil Engineer has certified that, for the two surface impoundments, the surface impoundment design (including leachate collection and removal system), vadose zone monitoring design and groundwater monitoring system design comply with Chapter 15 (now Title 27 CCR) for a Class II surface impoundment.
31. Ponds A and B were constructed and tested in 1986 and 1991, respectively. The design of these two surface impoundments, consist of the following liner system as shown on Attachment D:
  - The foundations for the embankments of the ponds consist of a tan silty-clay excavated from the site and were tied into the native soil by excavating and



backfilling a keyway. The embankments were then constructed in four inch lifts with the dark clay placed on the inside of the embankment and the tan silty-clay placed on the outside. The dark clay was placed along the cut slopes all the way to the bottom of the impoundment excavation to form a clay liner with a minimum thickness of 24 inches on the side slopes.

- A three-foot layer of the dark clay was placed in the bottom of the impoundment excavation on the compacted subgrade. The clay was graded into ridges and valleys, sloped at 2% downwards toward the valleys. The thickness of the clay liner on the bottom of the ponds is a minimum of 24 inches at the valley positions and 36 inches at the ridge positions.
  - Four-inch diameter perforated polyvinyl chloride (PVC) pipes were installed on top of the clay liner within the valleys and were surrounded with filter gravel and a geotextile filter fabric wrap. The pipes drain to a six inch perforated collector pipe that transports liquid to one of four leachate collection and recovery system (LCRS) sumps. A free-draining granular media was placed on top of the clay liner and LCRS piping to a depth of six inches at the ridge positions and 12 inches at the valley positions. A geomembrane drainage mat with a geo-fabric backing was placed on the clay liner of the side slopes to direct potential leakage from the side slopes to the LCRS.
  - Both surface impoundments were lined with a Hypalon reinforced chlorosulfonated polyethylene synthetic liner. The synthetic liner forms an impenetrable layer over the LCRS and was secured by burying the ends in an anchor trench at the top of the embankments. According to Kjeldsen, Sinnock and Associates, "Extensive testing conducted on Hypalon liners for use in salt gradient solar ponds indicate that Hypalon is very compatible with brine solutions and will perform very well in this application."
32. The four LCRS sumps are monitored quarterly for the presence of liquid. Approximately 70 gallons/minute of leachate can flow through the system without building a hydraulic head on the clay liner. The sumps are inspected quarterly for cracks in the concrete or visible wear, as well as for any liquid in the LCRS. There are float-controlled pumps in the bottom of the sumps, which will automatically turn on if any leachate enters the sump, and pump the leachate back into the evaporation pond. The pumps are pulled out of the sump quarterly and test by inverting the float control and verifying that the pump turns on automatically.
33. The Discharger has sampled the pond sediment for analysis and proposes to test the functionality of the LCRS system for each pond.
34. Section 13267(b) of California Water Code provides that: "In conducting an investigation specified in subdivision (a), the Regional Board may require that any person who has



discharged, discharges, or is suspected of discharging, or who proposed to discharge within its region, or any citizen or domiciliary, or political agency or entity of this state who had discharged, discharges, or is suspected of discharging, or who proposed to discharge waste outside of its region that could affect the quality of the waters of the state within its region shall furnish, under penalty of perjury, technical or monitoring program reports which the board requires. The burden, including costs of these reports, shall bear a reasonable relationship to the need for the reports and the benefits to be obtained from the reports. The monitoring and reporting program required by this Order and the attached "Monitoring and Reporting Program No. \_\_\_\_" are necessary to assure compliance with these waste discharge requirements. The Discharger operates the facility that discharges the waste subject to this Order.

35. Section 13268 of the California Water Code provides that: (a)(1) Any person failing or refusing to furnish technical or monitoring program reports as required by subdivision (b) of Section 13267, or failing or refusing to furnish a statement of compliance as required by subdivision (b) of Section 13399.2, or falsifying any information provided therein, is guilty of a misdemeanor and may be liable civilly in accordance with subdivision (b), and

(b) (1) Civil liability may be administratively imposed by a regional board in accordance with Article 2.5 (commencing with Section 13323) of Chapter 5 for a violation of subdivision (a) in an amount which shall not exceed one thousand dollars (\$1,000) for each day in which the violation occurs

### **CEQA AND OTHER CONSIDERATIONS**

36. The action to revise waste discharge requirements for this existing facility is exempt from the provisions of the California Environmental Quality Act (CEQA), Public Resource Code §21000, et seq., and the CEQA guidelines, in accordance with Title 14, CCR, §15301.
37. This order implements:
- a. *The Water Quality Control Plan for the Sacramento River and San Joaquin River Basins, Fourth Edition*, and subsequent revisions; and
  - b. The prescriptive standards and performance goals of Title 27, California Code of Regulations, effective 18 July 1997, and subsequent revisions.

### **PROCEDURAL REQUIREMENTS**

38. All local agencies with jurisdiction to regulate land use, solid waste disposal, air pollution, and to protect public health have approved the use of this site for the discharges of waste to land stated herein.



39. The Board notified the Discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for this discharge, and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.
40. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.
41. Any person affected by this action of the Regional Board may petition the State Water Resources Control Board to review the action in accordance with Sections 2050 through 2068, Title 23, California Code of Regulations. The petition must be received by the State Water Resources Control Board, Office of Chief Counsel, P.O. Box 100, Sacramento, California 95812, within 30 days of the date of issuance of this Order. Copies of the laws and regulations applicable to the filing of a petition are available on the Internet at [http://www.swrcb.ca.gov/water\\_laws/index.html](http://www.swrcb.ca.gov/water_laws/index.html) and will be provided on request

**IT IS HEREBY ORDERED** pursuant to Sections 13263 and 13267 of the California Water Code that Order No. 96-075 is rescinded, and that the Musco Family Olive Company and The Studley Company, its agents, successors, and assigns, in order to meet the provisions of Division 7 of the California Water Code and the regulations adopted there under, shall comply with the following:

**A. PROHIBITIONS**

1. The discharge of 'hazardous waste' at this facility is prohibited. For the purposes of this Order, the terms 'hazardous waste' and 'designated waste' are as defined in Division 2 of Title 27 of the CCR.
2. The discharge of solid waste or liquid waste to surface waters, surface water drainage courses, or groundwater is prohibited.
3. The discharge of wastes outside of a waste management unit or portions of a waste management unit specifically designed for their containment is prohibited.
4. The discharge of wastes that have the potential to reduce or impair the integrity of containment structures or which, if commingled with other wastes in the unit, could produce violent reaction, heat or pressure, fire or explosion, toxic by-products, or reaction products which, in turn:
  - a. require a higher level of containment than provided by the unit,
  - b. are 'restricted hazardous wastes', or



- c. impair the integrity of containment structures,  
  
is prohibited.

## **B. DISCHARGE SPECIFICATIONS**

### **General Specifications**

1. Wastes shall only be discharged into, and shall be confined to, the waste management units (WMUs) specifically designed for their containment.
2. Prior to the discharge of waste to a WMU, all wells within 500 feet of the unit shall have sanitary seals, which meet the requirements of the San Joaquin County Health Department or shall be properly abandoned. A record of the sealing and/or abandonment of such wells shall be sent to the Board and to the State Department of Water Resources.

### **Protection from Storm Events**

3. Waste management units shall be designed, constructed and operated to prevent inundation or washout due to flooding events with a 100-year return period.
4. Surface impoundments and related containment structures shall be constructed and maintained to prevent, to the greatest extent possible, inundation, erosion, slope failure, washout, and overtopping under 1,000-year, 24-hour precipitation conditions, and shall be designed to contain the 100-year wet season precipitation without using the required 2 feet of freeboard.
5. Precipitation and drainage control systems shall be designed, constructed and maintained to accommodate the anticipated volume of precipitation and peak flows from surface runoff under 100-year, 24-hour precipitation conditions.
6. Annually, prior to the anticipated rainy season, any necessary erosion control measures shall be implemented, and any necessary construction, maintenance, or repairs of precipitation and drainage control facilities shall be completed to prevent erosion or flooding of the site.

### **Class II Surface Impoundment**

7. In the event that a new surface impoundment(s) is proposed, the liner system shall meet the minimum requirements set forth in Title 27 CCR Section 20310 et seq. Title 27 CCR Section 20080 describes the performance standards for applying for an engineered alternative to the prescriptive standards.



8. Containment structures shall be designed by, and construction shall be supervised and certified by, a registered civil engineer or a certified engineering geologist. Units shall receive a final inspection and approval of the construction by RWQCB staff before use of the Unit commences.
9. The unsaturated zone monitoring system shall be capable of measuring both saturated and unsaturated flows that may occur because of a release from the waste management unit.
10. Surface impoundments and related containment structures shall be constructed and maintained to prevent, to the greatest extent possible, inundation, erosion, slope failure, washout, and overtopping under 1,000-year, 24-hour precipitation conditions, and shall be designed to contain the 100-year wet season precipitation without using the required 2 feet of freeboard.
11. Materials used to construct liners shall have appropriate physical and chemical properties to ensure containment of discharged wastes over the operating life, closure, and post-closure maintenance period of the surface impoundments.
12. Materials used to construct LCRSs shall have appropriate physical and chemical properties to ensure the required transmission of leachate over the life of the surface impoundments and the post-closure maintenance period.
13. LCRSs shall be designed, constructed, and maintained to collect twice the anticipated daily volume of leachate generated by each surface impoundment and to prevent the buildup of hydraulic head on the underlying liner at any time. The depth of the fluid in any LCRS sump shall be kept at the minimum needed for safe pump operation.
14. Any direct-line discharge to a surface impoundment shall have fail-safe equipment or operating procedures to prevent overfilling.
15. The surface impoundment(s) shall be designed, constructed and maintained to prevent scouring and/or erosion of the liners and other containment features at points of discharge to the impoundments and by wave action at the water line.
16. Leachate removed from a surface impoundment's primary LCRS shall be discharged to the impoundment from which it originated.
17. Leachate generation by a surface impoundment to the primary LCRS shall not exceed design requirements. If leachate generation exceeds this value, then the Discharger shall immediately cease the discharge of waste, excluding leachate, to the impoundment and shall notify the Board in writing within seven days. Notification



shall include a timetable for remedial action to repair the upper liner to the impoundment or other action necessary to reduce leachate production.

18. If leachate is detected in the vadose zone monitoring system (VZMS) of a surface impoundments indicating a leak in the containment structures the Discharger shall:
  - a. Immediately cease discharge of waste, excluding leachate to the surface impoundments until the leaks can be found and repaired;
  - b. report to the RWQCB that the containment structures have failed within 72 hours;
  - c. submit written notification of the release to the RWQCB within seven days, the notification should include a time schedule to repair the containment structures; and
  - d. discharge of wastes to the surface impoundments will not resume until the RWQCB has determined that repairs to the liners are complete and there is no further threat to water quality.
19. Solids that accumulate in the surface impoundments shall be periodically removed to maintain minimum freeboard requirements and to maintain sufficient capacity for surface impoundment leachate and for the discharge of wastes. Prior to removal of these solids, sufficient samples shall be taken for their characterization and classification pursuant to Article 2, Subchapter 2, Chapter 3, Division 2 of Title 27 CCR. The rationale for the sampling protocol used, the results of this sampling, and a rationale for classification of the solids shall be submitted to Board staff for review.
20. Leachate generation by a waste containment unit LCRS shall not exceed 85% of the design capacity of (a) the LCRS, or (b) the sump pump. If leachate generation exceeds this value and/or if the depth of the fluid in an LCRS exceeds the minimum needed for safe pump operation, then the Discharger shall immediately cease the discharge of waste, excluding leachate, to the waste management unit and shall notify the Board in writing within **seven days**. Notification shall include a timetable for a remedial action to repair the containment structures or other action necessary to reduce leachate production.

#### **Class II Surface Impoundment Closure**

21. The closure of each surface impoundments shall be under the direct supervision of a California registered civil engineer or certified engineering geologist.



22. At closure of surface impoundments, all residual wastes, including liquids, sludges, precipitates, settled solids, and liner materials and adjacent natural geologic materials contaminated by wastes, shall be completely removed and discharged to a waste management unit approved by Board staff. If after reasonable attempts, the Discharger demonstrates the removal of all remaining contamination is infeasible, the surface impoundments shall be closed as a landfill.

## C. RECEIVING WATER LIMITATIONS

### Water Quality Protection Standards

The concentrations of Constituents of Concern in waters passing through the Points of Compliance shall not exceed the Concentration Limits established pursuant to Monitoring and Reporting Program No. R5-2004-\_\_\_\_, which is attached to and made part of this Order.

## D. FINANCIAL ASSURANCE

1. The Discharger shall demonstrate financial responsibility for initiating and completing corrective action of all known or reasonably foreseeable releases, and shall submit a report for financial assurances by **April 30 each year** to the Executive Officer review and approval. The assurances of financial responsibility shall name the Regional Board as beneficiary and shall provide that funds for corrective action shall be available to the Regional Board upon the issuance of any order under California Water Code, Division 7, Chapter 5. The Discharger shall adjust the cost annually to account for inflation and any changes in facility design, construction, or operation.
2. The Discharger shall demonstrate financial responsibility for closure and post-closure maintenance, and shall submit a report of financial assurances by **April 30 each year** for Executive Officer review and approval. The assurances of financial responsibility shall provide that funds for closure and post-closure maintenance shall be available to the Regional Board upon the issuance of any order under California Water Code, Division 7, Chapter 5. The Discharger shall adjust the cost annually to account for inflation and any changes in facility design, construction, or operation.
3. The Discharger shall, by **30 April of each year**, submit for approval by the Executive Officer, plans with detailed cost estimates and a demonstration of assurances of financial responsibility for initiating and completing corrective action for all known or reasonably foreseeable releases from the waste management unit. The Discharger shall provide the assurances of financial responsibility to the Regional Board as required by Title 27 CCR, Division 2, Subdivision 1, Chapter 6. The assurances of financial responsibility shall provide that funds for corrective action shall be available to the Regional Board upon the issuance of any order under California Water Code, Division 7, Chapter 5. The Discharger shall adjust the cost annually to



account for inflation and any changes in facility design, construction, or operation. The financial assurance fund for corrective action shall be established **prior to discharging waste to the surface impoundments.**

4. The Discharger shall, by **30 April** of each year, submit for approval by the Executive Officer, plans with detailed cost estimates and a demonstration of assurances of financial responsibility to ensure closure and post-closure maintenance of each waste management unit in accordance with its approved closure and post-closure maintenance plans. The Discharger shall provide the assurances of financial responsibility to the Regional Board as required by Title 27 CCR, Division 2, Subdivision 1, Chapter 6. The assurances of financial responsibility shall provide that funds for corrective action shall be available to the Regional Board upon the issuance of any order under California Water Code, Division 7, Chapter 5. The Discharger shall adjust the cost annually to account for inflation and any changes in facility design, construction, or operation. The financial assurance fund for closure and post-closure maintenance shall be established prior to discharging waste to the surface impoundments.

#### **E. PROVISIONS**

1. The Discharger shall comply with the Standard Provisions and Reporting Requirements, dated September 2003, which are hereby incorporated into this Order. The Standard Provisions and Reporting Requirements contain important provisions and requirements with which the Discharger must comply. A violation of any of the Standard Provisions and Reporting Requirements is a violation of these waste discharge requirements.
2. The Discharger shall comply with Monitoring and Reporting Program No. R5-2004-\_\_\_\_, which is attached to and made part of this Order. This compliance includes, but is not limited to, maintenance of waste containment facilities and precipitation and drainage controls and monitoring groundwater, the unsaturated zone, and surface waters throughout the active life of the waste management units and the post-closure maintenance period. A violation of Monitoring and Reporting Program No. R5-2004-\_\_\_\_ is a violation of these waste discharge requirements.
3. The Discharger shall complete the following tasks and obtain approval by Board staff:
  - a. install a background groundwater monitoring system;



- b. establish background groundwater quality through at least one year of monitoring (a minimum of 8 samples is required to develop statistical values for inorganic COCs);
  - c. submit a report proposing a Water Quality Protection Standard (Water Standard);
  - d. submit a plan for approval by the RWQCB for a groundwater quality monitoring system; and
  - e. install an approved groundwater quality monitoring system.
4. Prior to discharging waste to the Class II Surface Impoundment the discharger shall establish Financial Assurance funds for corrective action, unit closure and post-closure maintenance.
5. The Discharger shall maintain legible records of the volume and type of waste discharged to the surface impoundments and the manner and location of the discharge. Such records shall be maintained at the facility until the beginning of the post-closure maintenance period. These records shall be available for review by representatives of the Board and of the State Water Resources Control Board. Copies of these records shall be sent to the Board.
6. The Discharger shall provide proof to the Board within sixty days after completing final closure that the deed to the surface impoundment facility property, or some other instrument that is normally examined during title search, has been modified to include, in perpetuity, a notation to any potential purchaser of the property stating that:
  - a. the parcel has been used for disposal of liquid wastes;
  - b. land use options for the parcel are restricted in accordance with the post-closure land uses set forth in the post-closure plan and in WDRs for the surface impoundment; and
  - c. in the event that the Discharger defaults on carrying out either the post-closure maintenance plan or any corrective action needed to address a release, then the responsibility for carrying out such work falls to the property owner.
7. The Board will review this Order periodically and may revise requirements when necessary.



**F. REPORTING REQUIREMENTS**

1. The Discharger shall comply with the reporting requirements specified in this Order, in Monitoring and Reporting Program Order No. R5-2004-\_\_\_\_ and in the Standard Provisions and Reporting Requirements dated September 2003.
2. Pursuant to Section 13267(b) of California Water Code and these WDRs the Discharger shall complete the tasks outlined in these WDRs and the attached Monitoring and Reporting Program No. \_\_\_\_ in accordance with the following time schedule. The required technical reports are necessary in the evaluation and protection of water quality:

**Task**

**Compliance Date**

- |  |                                  |
|--|----------------------------------|
| a. Submit a work plan with a schedule describing details for installation of monitoring wells surrounding Ponds A and B. | <b>1 January 2005</b>            |
| b. Submit a work plan with a schedule describing details for a LCRS and lysimeter test of Ponds A and B.                 | <b>1 January 2005</b>            |
| c. Submit Water Quality Protection Standards based on background (minimum of 8 discrete sampling events)                 | <b>1 January 2005</b>            |
| d. Submit a closure and post-closure maintenance plan that complies with Title 27 CCR                                    | <b>180 days prior to closure</b> |
3. In the event of any change in ownership of this waste management facility, the Discharger shall notify the succeeding owner or operator in writing of the existence of this Order. A copy of that notification shall be sent to the Board.



